

ANSI/ASHRAE/IESNA Addendum *ah* to  
ANSI/ASHRAE/IESNA Standard 90.1-2001



# ASHRAE<sup>®</sup> STANDARD

## Energy Standard for Buildings Except Low-Rise Residential Buildings

Approved by the ASHRAE Standards Committee on April 28, 2004; by the ASHRAE Board of Directors on July 1, 2004; and by the American National Standards Institute on July 1, 2004.

This standard is under continuous maintenance by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. The change submittal form, instructions, and deadlines are given at the back of this document and may be obtained in electronic form from ASHRAE's Internet Home Page, <http://www.ashrae.org>, or in paper form from the Manager of Standards. The latest edition of an ASHRAE Standard and printed copies of a public review draft may be purchased from ASHRAE Customer Service, 1791 Tullie Circle, NE, Atlanta, GA 30329-2305. E-mail: [orders@ashrae.org](mailto:orders@ashrae.org). Fax: 404-321-5478. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in U.S. and Canada).

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ISSN 1041-2336

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This American National Standard (ANS) is a national voluntary consensus standard developed under the auspices of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). Consensus is defined by the American National Standards Institute (ANSI), of which ASHRAE is a member and which has approved this standard as an ANS, as "substantial agreement reached by directly and materially affected interest categories. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution." Compliance with this standard is voluntary until and unless a legal jurisdiction makes compliance mandatory through legislation.

ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Manager of Standards of ASHRAE should be contacted for:

- a. interpretation of the contents of this Standard,
- b. participation in the next review of the Standard,
- c. offering constructive criticism for improving the Standard,
- d. permission to reprint portions of the Standard.

### **DISCLAIMER**

ASHRAE uses its best efforts to promulgate Standards and Guidelines for the benefit of the public in light of available information and accepted industry practices. However, ASHRAE does not guarantee, certify, or assure the safety or performance of any products, components, or systems tested, installed, or operated in accordance with ASHRAE's Standards or Guidelines or that any tests conducted under its Standards or Guidelines will be nonhazardous or free from risk.

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In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.

*(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process.)*

## **FOREWORD**

*This addendum adds weather data for eight new locations: the District of Columbia (to remedy an earlier omission), six locations in the U.S. Territories, and a new location in the Philippines. These additions do not impact the strin-*

*gency of the standard but simply increase its usability. The omission of DC from the current list of weather locations surfaced during training sessions about 90.1-1999/2001 compliance that were presented in the region near Washington, D.C.*

## **Addendum ah to 90.1-2001 (I-P and SI editions)**

*Change the title of Table D-1 in Appendix D as follows (both I-P and SI editions):*

### **TABLE D-1 U.S. and U.S. Territory Climatic Data**

Add the following weather data for the District of Columbia and U.S. Territories to Table D-1 in Appendix D. These data should be placed at the end of the Table D-1, after the entries for Wyoming, with a double horizontal line separating these entries from the Wyoming entries.

**(I-P Edition)**

District or Territory	Location	Table	Latitude	Longitude	Elev. (ft)	IP Units (°F)					
						Win.		Summer		No. Hrs.	
						Des. 99.6%	DB 1.0%	WB 1.0%	8 a.m.-4 p.m. 55<Tdb<69		
<b>District of Columbia (DC)</b>											
	Ronald Reagan Airport	B-13	38.85 N	77.03 W	66	4,047	4,391	15	92	76	657
<b>Puerto Rico (PR)</b>											
	San Juan/Isla Verde WSFO	B-1	18.43 N	66.00 W	10	0	11,406	69	90	78	N.A.
<b>Pacific Islands (PI)</b>											
	Guam (GU) - Andersen AFB	B-2	13.58 N	144.93 E	361	0	10,690	74	87	79	N.A.
	Marshall Island (MH) - Kwajalein Atoll	B-1	8.73 N	167.73 E	26	0	11,670	76	88	79	N.A.
	Midway Island (MH) - Midway Island NAF	B-3	28.22 N	177.37 W	13	134	8,323	59	86	75	N.A.
	Samoa (WS) - Pago Pago WSO Airport	B-1	14.33 S	170.72 W	9	0	11,018	72	88	80	N.A.
	Wake Island - Wake Island WSO Airport	B-1	19.28 N	166.65 E	12	0	11,097	71	89	79	N.A.

## SI Units (°C)

District or Territory	Location	Table	Latitude	Longitude	Elev. (m)	HDD18	CDD10	SI Units (°C)			No. Hrs. 8 a.m.-4 p.m.
								Des. 99.6%	DB 1.0%	WB 1.0%	
<b>District of Columbia (DC)</b>											
	Ronald Reagan Airport	B-13	38.85 N	77.03 W	20	2,248	2,439	-9	34	24	657
<b>Puerto Rico (PR)</b>											
	San Juan/Isla Verde WSFO	B-1	18.43 N	66.00 W	3	0	6,337	21	32	26	N.A.
<b>Pacific Islands (PI)</b>											
	Guam (GU) - Andersen AFB	B-2	13.58 N	144.93 E	185	0	5,939	23	31	26	N.A.
	Marshall Island (MH) - Kwajalein Atoll	B-1	8.73 N	167.73 E	8	0	6,483	24	31	26	N.A.
	Midway Island (MH) - Midway Island NAF	B-3	28.22 N	177.37 W	4	74	4,624	15	30	24	N.A.
	Samoa (WS) - Pago Pago WSO Airport	B-1	14.33 S	170.72 W	3	0	6,121	22	31	27	N.A.
	Wake Island - Wake Island WSO Airport	B-1	19.28 N	166.65 E	4	0	6,165	22	31	26	N.A.

Add the following weather data for the Philippines to Table D-3 in Appendix D (both I-P and S-I shown).

											IP Units (°F)			
											Win.	Summer		No. Hrs.
											Des.	DB	WB	8 a.m.-4 p.m.
Country	City	Table	Latitude	Longitude	Elev. (ft)	HDD65	CDD50	99.6%	1.0%	1.0%	55<Tdb<69			
Philippines	Philippines (PH) - Angeles, Clark AFB	B-1	15.18 N	120.55 E	475	0	11,280	68	95	77	N.A.			
											SI Units (°C)			
											Win.	Summer		No. Hrs.
											Des.	DB	WB	8am-4pm
Country	City	Table	Latitude	Longitude	Elev. (m)	HDD18	CDD10	99.6%	1.0%	1.0%	13<Tdb<21			
Philippines	Philippines (PH) - Angeles, Clark AFB	B-1	15.18 N	120.55 E	196	0	6,267	20	35	25	N.A.			

## **POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES**

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the standards and guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive technical committee structure, continue to generate up-to-date standards and guidelines where appropriate and adopt, recommend, and promote those new and revised standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating standards and guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.